

I(WE) CLAIM:

1. A method for data transmission in wireless local area networks, with the data transmission being implemented between a first and a second communicant, in which a first standardized data transmission rule is implemented, by means of transmission and/or reception of information elements with variant element formats on electromagnetic signal paths, with the information elements comprising an element identification part, a length statement part and an information part, and the element identification part having a permissible value range from which a first standardized value of the element identification part identifies the information element as a first information element whose information part contains parameters which relate to the data transmission of the communicant in accordance with a first data transmission rule as the transmitter, a receiving communicant storing the parameters for the transmitting communicant in order to set the data transmission for return to the transmitting communicant, and each of the communicants, as the receiver determining the length of the information part from the length statement part on identification of a value of the element identification part outside the permissible value range, and jumping over the information part corresponding to the determined length, characterized in that, at least in the case of one of the communicants, the first and a second data transmission rule are implemented, and the permissible value range is expanded in such a way that a second standardized value of the element identification part identifies the information element as a second information element whose information part contains parameters which relate to the data transmission of the transmitting communicant in accordance with the second data transmission rule.

2. The method as claimed in claim 1, characterized in that the first information element contains only parameters which relate to the data transmission in accordance with the

first data transmission rule, and the second information element contains only parameters which relate to the data transmission in accordance with the second data transmission rule.

3. The method as claimed in claim 1 or 2, characterized in that, when a communicant, in which only the first data transmission rule is implemented receives the second information element, the second information element is jumped over.

4. The method as claimed in claim 1 or 2, characterized in that, when a communicant in which both data transmission rules are implemented receives the second information element, the parameters which relate to the first and second information elements are stored.

5. The method as claimed in one of claims 1 to 4, characterized in that the values in the information part of second information elements represent a set of data transmission rates which are supported by the transmitting communicant, in such a way that each value corresponds to one supported data transmission rate.

6. The method as claimed in claim 5, characterized in that the difference between a data transmission rate which corresponds to one value and the data transmission rate which corresponds to the next value is greater than or equal to 500 Kbit/s.

7. The method as claimed in claim 6, characterized in that the difference is 1 Mbit/s.

8. The method as claimed in one of claims 5 to 7, characterized in that at most eight values correspond to the data transmission rates of the first data transmission rule, and all the other values correspond to the data transmission rates of the second data transmission rule.

9. The method as claimed in one of claims 5 to 7, characterized in that the second information element additionally contains the values of the data transmission rates which are equal to values for data transmission rates of the first data transmission rule.

10. The method as claimed in claim 9, characterized in that, when a communicant in which both data transmission rules are implemented receives the second information element, only the parameters which relate to the second information element are stored.

11. The method as claimed in one of claims 1 to 10, characterized in that, in addition to the second information element, a third or further information element or elements is or are also formed, which represents or represent third or further data transmission rules.

12. The method as claimed in one of claims 1 to 11, characterized in that the data rates in the information element are represented by value pairs, in such a way that the one value of the pair codes the data transmission rule itself and the other value codes the data rate, in which case the coding of the data rate may depend on the data transmission rule.

13. A communication device for data transmission in wireless networks which can be connected, as the first communicant in such networks to a second communicant via electromagnetic signal paths and which has at least one transmitting unit, with a first data transmission rule (which defines first information elements comprising an element identification part, a length statement part and an information part) being implemented in the communication device and defining a permissible value range for the element identification part, characterized in that a second data transmission rule with an expanded value range of the element identification part is implemented, and in that the transmitting unit can send second information elements which are defined by a second standardized value of the element identification part, and whose

information part contains parameters which relate to the data transmission in accordance with the second data transmission rule.

14. The communication device as claimed in claim 13, characterized in that a receiving unit is arranged, and is designed for reception of a first and of a second information element.

15. The communication device as claimed in claim 14, characterized in that the communication device can be switched between first and second data transmission rules as a function of the reception of information elements during transmission.

16. The communication device as claimed in one of claims 13 to 15, characterized in that a memory is arranged, and is designed to store parameters which relate to received second information elements.

17. The communication device as claimed in one of claims 13 to 15, characterized in that a memory is arranged and is designed to store parameters which relate to received first and second information elements.

18. The communication device as claimed in one of claims 13 to 17, characterized in that a third or further data transmission rule or rules is or are implemented in the same way as the second data transmission rule.